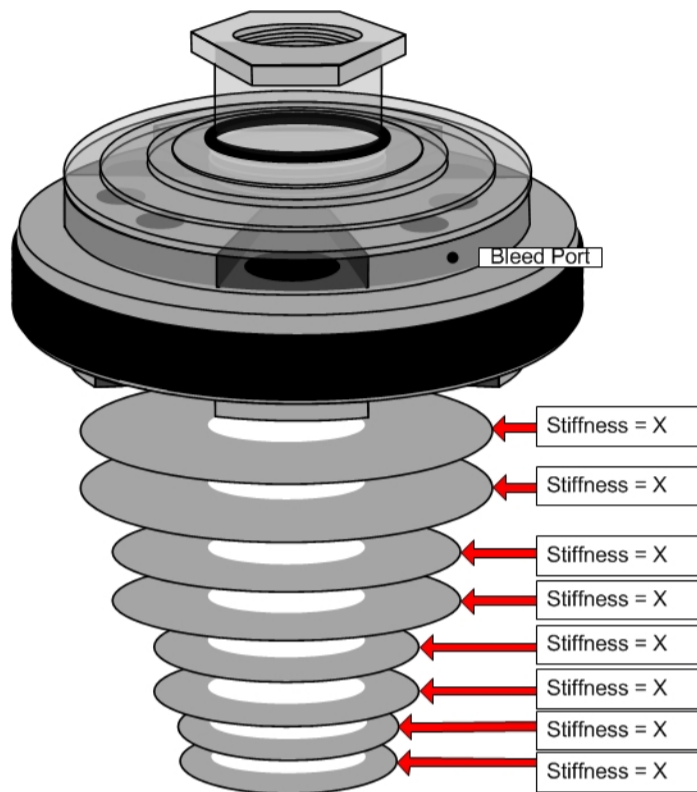


The Compression Stack

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As discussed in the "Rebound Stack" document, a shim is nothing more than a steel washer. The compression stack however differs greatly from the rebound stack in that it works as a "metering device" in conjunction WITH the **Shock Spring**. The rebound stack works AGAINST the **Shock Spring**.

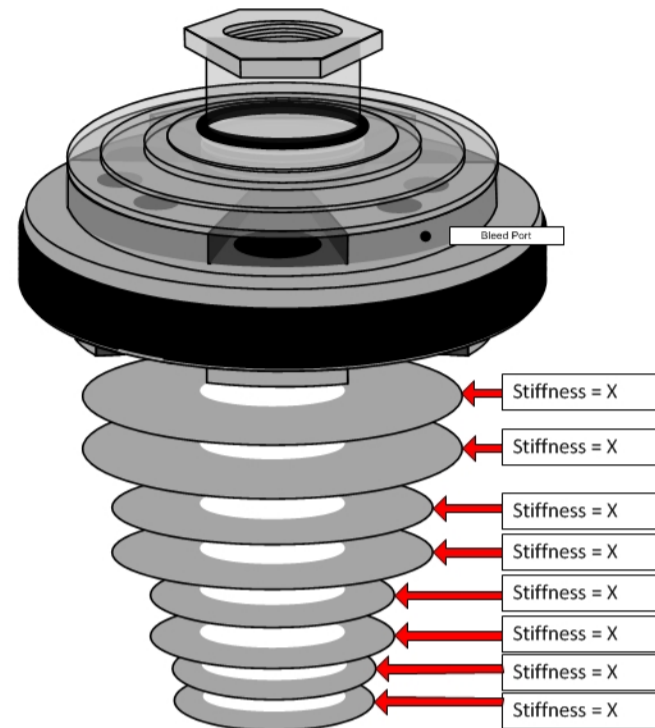
More specifically...unlike the rebound stack which must be built according to weight of the **Shock Spring** and desired performance, the compression stack is simply built to provide a damping value to accommodate the rider. That is why you typically see consistent shock dyno numbers for compression no matter what the spring rate. Typically compression max damping rates are less than 300lbs, while rebound max rates are 600lbs - 1000lbs.

Lastly, manufacturers and shock builders may place "blow off" shim(s) to provide rider feedback and ensure that "when it is time for the shock to compress", it will.

What this specifically means is that the dynamics of compression are different from rebound damping in that the shock needs to consistently be able to compress more than the need for the shock to "quickly rebound". These diagrams show the "blow off" shim and its effect on damping.

Linear shim stack design

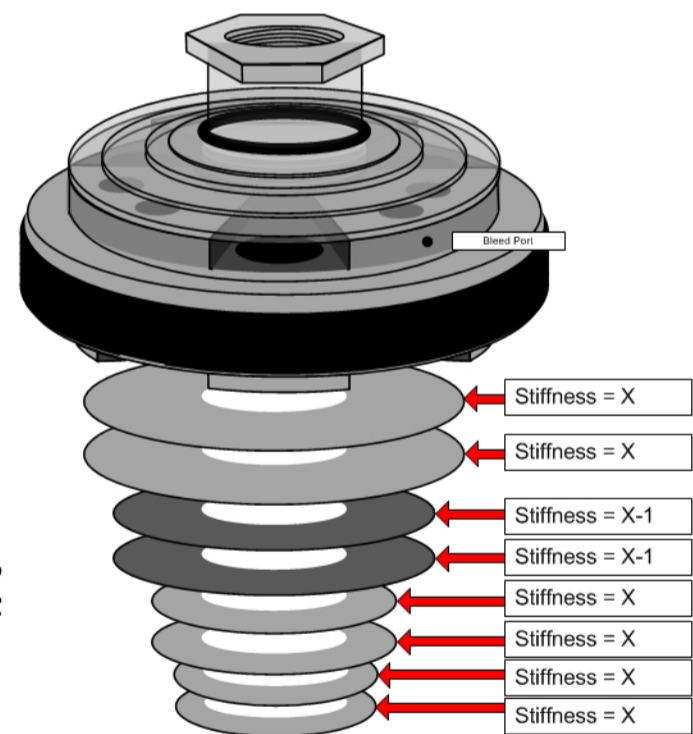
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The shim stack is "linear". What this entails is that shim stack will provide mostly "flat rate" damping performance. This is a common valving solution made for a diverse range of operation where track conditions and rider skill may range widely, but still provides acceptable performance for all scenarios.

Stack design with "blow off" shim

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This shim stack is mostly linear, BUT the second set of shims is slightly softer than the rest. What this provides is that low speed compression will mostly be maintained, BUT the two "lighter" shims will induce/promote the stack to open if there is a harsh bump. This will provide a more compliant ride in many cases.

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